

Claims

1. Device (10) for controlling the air flow (A) in a ventilating pipe (12) with one or more air flaps (32) which can be actuated synchronously and which prevent the air flow (A) in the pipe in the closed position, characterised in that a fastening web (16) with a pivot bearing (30) for the drive axle (28) of the air flap(s) (32) and means (50, 52) for transmitting force and/or torque to the drive axle (28) connected to the air flap(s) (32) are arranged in the ventilating pipe (12), on a longitudinally extending plane of symmetry, wherein the same fastening web (16) fitted with various air flaps (32) can be used for cross-sectionally differently dimensioned ventilating pipes (12).
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2. Device (10) according to claim 1, characterised in that the fastening web (16) extends at an angle (β) of preferably 15 to 90° with respect to the longitudinal axis (L) or the pipe wall (18) of the ventilating pipe (12).
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3. Device (10) according to claim 1 or 2, characterised in that the fastening web (16) is fastened so as to be detachable at one end and so as to be pivotable in the plane of symmetry on the pipe wall (18).
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4. Device (10) according to any one of claims 1 to 3, characterised in that the fastening web (16) extends over the entire pipe cross-section and rests at the free end with a support face (44) on the pipe wall (18).
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5. Device (10) according to claim 4, characterised in that the fastening web (16) is detachably fastened at both ends to the pipe wall (18).
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6. Device (10) according to any one of claims 1 to 5, characterised in that the actuator (48) of the drive axle(s) (28) is integrated at least partially into the fastening web (16), preferably a program-controlled electric motor.
7. Device (10) according to any one of claims 1 to 6, characterised in that the actuator (48) acts on the drive axle(s) (28) by way of a reducing gear (52).

8. Device (10) according to any one of claims 1 to 7, characterised in that the control electronics (26) are installed at least partially in the fastening web (16).

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9. Device (10) according to any one of claims 1 to 8, characterised in that the fastening web (16) is streamlined, preferably round or prismatic with rounded edges.

10 10. Device (10) according to any one of claims 1 to 9, characterised in that a fastening point is provided, in each case, on the drive axle (28) on either side of the fastening web (16) for the air flap(s) (32).

15 11. Device (10) according to any one of claims 1 to 10, characterised in that the drive axles (28) of the air flap(s) (32) are lengthened for centring thereof on either side of the pipe wall (18) and are supported there.

20 12. Device (10) according to any one of claims 1 to 11, characterised in that the blade-shaped air flap (32) can be folded over parallel to the drive axle (28).

25 13. Device (10) according to any one of claims 1 to 12, characterised in that the gap (62) of the blade-shaped air flap (32) has three-dimensional means, in particular sealing hoods (36) for sealing until the closed position is reached.

30 14. Device (10) according to any one of claims 1 to 13, characterised in that the blade-shaped air flap (32) is configured with a continuous gap (62) for the fastening web (16), in one piece with a gap (62) or with joined halves with a gap (62).

15. Device (10) according to any one of claims 1 to 14, characterised in that a monitor (24) visually displays the flap position.

16. Device (10) according to any one of claims 1 to 15, characterised in that
measuring cells (54, 56) for measuring the differential pressure (p_1, p_2), the
volume flow and/or the flap position are arranged on the fastening web
5 (16).